Started on	Friday, 24 May 2024, 12:44 PM
State	Finished
Completed on	Friday, 24 May 2024, 12:48 PM
Time taken	3 mins 43 secs
Marks	0.00/15.00
Grade	**0.00** out of 10.00 (**0**%)

Question 1

Not answered

Marked out of 1.00

A basketball player is asked to shot free throws in sets of four. The player shoots 100 sets of 4 free throws. The probability distribution for making a particular number of free throws is given below. Determine the standard deviation for this discrete probability distribution.

x	0	1	2	3	4
$P(x)$	0.42	0.07	0.22	0.27	0.02

Select one:

- a. 1.05
- b. 1.21
- c. 1.32
- d. 1.10
- e. None of the other choices is correct

Question 2

Not answered

Marked out of 1.00

It was found that 60% of the workers were white, 30% were black and 10% are other races. Given that a worker was white, the probability that the worker had claimed bias was 30%. Given that a worker was black, the probability that the worker had claimed bias was 40%. Given that a worker was other race, the probability that the worker had claimed bias was 0%.

Suppose that a randomly selected worker had claimed bias. What is the probability that the worker is white?

Select one:

- a. 0.4
- b. 0.6
- c. 0.3
- d. None of the other choices is correct
- e. 0.7

Question 3

Not answered

Marked out of 1.00

Suppose that on a particular multiple choice question, 96% of the students answered correctly. What is the probability that a randomly selected student answered the question incorrectly?

Select one:

a. 0.48
b. None of the other choices is correct
c. 0.04
d. 0.96
e. 0.14

Question 4

Not answered

Marked out of 1.00

Assume the probability of a newborn child being female is 0.5. Determine the probability that in 50 births, 35 or more will be female.

Select one:

a. None of the other choices is correct
b. \(0.1841\)
c. \(0.0033\)
d. \(0.8059\)
e. \(0.0606\)

Question 5

Not answered

Marked out of 1.00

Find the mean for the binomial distribution which has the stated values of \(n = 20\) and \(p = 3/5\). Round answer to the nearest tenth.

Select one:

a. \(12.7\)
b. None of the other choices is correct
c. \(11.5\)
d. \(12.0\)
e. \(12.3\)

Question 6

Not answered

Marked out of 1.00

The probability is \(5\%\) that an electrical connector that is kept dry fails during the warranty period of a portable computer. If the connector is ever wet, the probability of a failure during the warranty period is \(20\%\). If \(90\%\) of the connectors are kept dry and \(10\%\) are wet, what proportion of connectors fail during the warranty period?

Select one:

a. None of the other choices is correct

b. \(0.625\)

c. \(0.086\)

d. \(0.065\)

e. \(0.036\)

Question 7

Not answered

Marked out of 1.00

A group of volunteers for a clinical trial consists of \(123\) women and \(178\) men. \(54\) of the women and \(46\) of the men have high blood pressure. If one of the volunteers is selected at random find the probability that the person is a man given that they have high blood pressure.

Select one:

a. \(0.460\)

b. None of the other choices is correct

c. \(0.488\)

d. \(0.512\)

e. \(0.256\)

Question 8

Not answered

Marked out of 1.00

The number of calls to an Internet service provider during the hour between 6:00 and 7:00 p.m. is described by a Poisson distribution with mean equal to \(15\). Given this information, what is the expected number of calls in the first \(30\) minutes?

Select one:

a. \(225\)

b. \(15\)

c. \(3.87\)

d. \(7.5\)

e. None of the other choices is correct

Question 9

Not answered

Marked out of 1.00

A greenhouse is offering a sale on tulip bulbs because they have inadvertently mixed pink bulbs with red bulbs. Suppose that \(35\%\) of the bulbs are pink and \(65\%\) are red. What is the probability that at least one of the bulbs will be pink if \(5\) bulbs are purchased?

Select one:

- a. \(0.2082\)
- b. \(0.8704\)
- c. None of the other choices is correct
- d. \(0.9744\)
- e. \(0.8840\)

Question 10

Not answered

Marked out of 1.00

The on-line access computer service industry is growing at an extraordinary rate. Current estimates suggest that \(25\%\) of people with home-based computers have access to on-line services. Suppose that \(10\) people with home-based computers were randomly and independently sampled. What is the probability that exactly \(5\) of those sampled have access to on-line services at home?

Select one:

- a. \(0.9389\)
- b. \(0.0584\)
- c. None of the other choices is correct
- d. \(0.1032\)
- e. \(0.3333\)

Question 11

Not answered

Marked out of 1.00

Product codes of \(3, 4\) or \(5\) letters are equally likely. What is the mean of the number of letters in \(20\) codes?

Select one:

- a. \(80\)
- b. None of the other choices is correct
- c. \(8\)
- d. \(40\)
- e. \(4\)

Question 12

Not answered

Marked out of 1.00

The probability of a successful optical alignment in the assembly of an optical data storage product is \(0.7\). Assume the trials are independent. What is the probability that the first two successful alignments require exactly \(4\) trials?

Select one:

a. \(0.017\)

b. \(0.402\)

c. None of the other choices is correct

d. \(0.132\)

e. \(0.005\)

Question 13

Not answered

Marked out of 1.00

Both Nualart and Tom have a bag of candy containing a lollipop \((LP)\), a cherry drop \((CD)\), and a lemon drop \((LD)\). Each takes out a piece and eats it. What are the possible pairs of candies eaten? Create the sample space of possible outcomes.

Select one:

a. S = {LD-CD, LD-CD, LD-CD, LD-LP, LD-LP, LD-LP, CD-LP, CD-LP, CD-LP}

b. S = {LD-LD, CD-LD, LP-LP, LD-LP, CD-CD, LD-LP, LP-CD, CD-LP, LP-LD}

c. S = {CD-LD, LD-LP, LP-CD, LP-LP, LD-LD}

d. S = {LD-LD, CD-LD, LP-LP, LD-CD, CD-CD, LD-LP, LP-CD, CD-LP, LP-LD}

e. None of the other choices is correct

Question 14

Not answered

Marked out of 1.00

Given events \(A\) and \(B\) with probabilities \(P(A) = 0.75\) and \(P(B) = 0.15\). Are \(A\) and \(B\) mutually exclusive?

Select one:

a. Cannot be determined

b. Yes

c. No

Question 15

Not answered

Marked out of 1.00

An employee at the local ice cream parlor asks three customers if they like chocolate ice cream. What is the sample?

Select one:

a. None of the other choices is correct.

b. All men customers.

c. All customers.

d. All women customers.

e. Three selected customers.